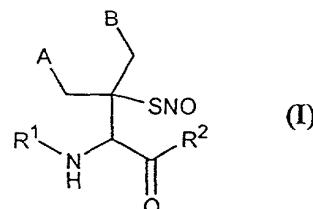


## CLAIMS

1.- S-nitrosothiols derivatives of penicillamine or glutathione, and its pharmaceutically acceptable  
5 salts, which correspond to following general formula(I)



in which:

A and B are phenyl groups or together form the rest  
-CH<sub>2</sub>-Q-CH<sub>2</sub>- constituting a ring of six units in which  
10 Q represents an atom of oxygen, of sulfur, or a  
group N-R<sup>3</sup>, in which R<sup>3</sup> is hydrogen or an alkyl group  
C<sub>1</sub>-C<sub>4</sub>;

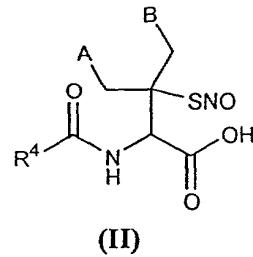
R<sup>1</sup> is an acyl rest, which may be an aliphatic acyl  
group C<sub>1</sub>-C<sub>5</sub> or a rest of glutamic acid bound via its  
non amino acid carboxyl;

15 R<sup>2</sup> is a hydroxyl group or a glycine rest bound via a  
peptide bond;

with the proviso that if R<sup>1</sup> is an aliphatic acyl rest  
then R<sup>2</sup> is a hydroxyl group, and if R<sup>1</sup> a rest of glutamic  
acid then R<sup>2</sup> is a glycine rest.

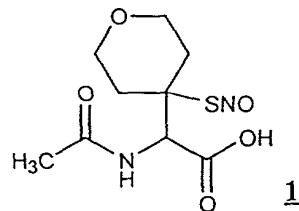
20

2.- S-nitrosothiols of claim 1, which corre-  
sponds to following general formula (II)

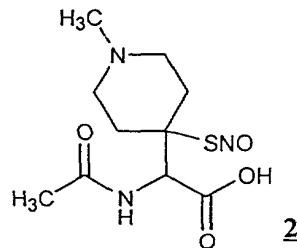


in which A and B have the values mentioned above and R<sup>4</sup> is an alkyl group C<sub>1</sub>-C<sub>4</sub>.

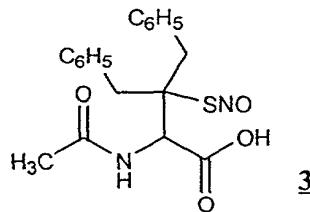
- 3.- The compound of any of the claims 1 or 2,  
 5 N-acetyl-2-amino-2-[4-(4-S-nitrosomercaptotetrahydropyran)] acetic acid (1).



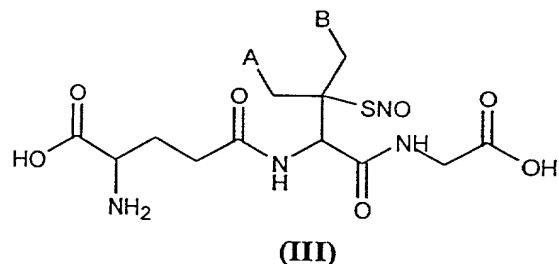
- 4.- The compound of any of the claims 1 or 2,  
 10 N-acetyl-2-amino-2-[4-(4-S-nitrosomercapto-1-methylpiperidin)]acetic acid (2).



- 5.- The compound of any of the claims 1 or 2,  
 15 N-acetyl-2-amino-3-benzyl-3-S-nitrosomercapto-4-phenylbutanoic acid (3).

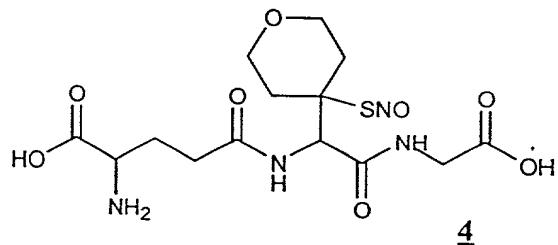


- 6.- S-nitrosothiols of claim 1, which corresponds to following general formula (III)

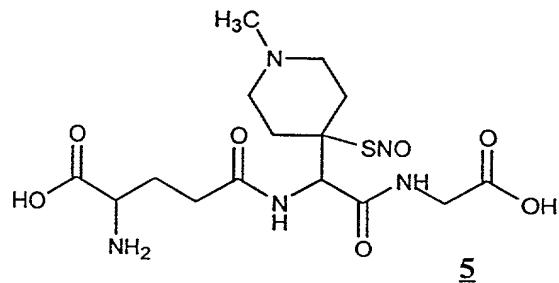


in which A and B have the values mentioned above.

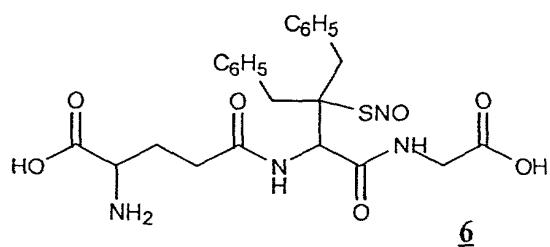
7. The compound of any of claims 1 or 6, N[N- $\gamma$ -L-glutamyl-2-amino-2-(4-(4-S-nitrosomercapto)tetrahydropyr-an))acetyl]-glycine (4).



- 8.- The compound of any of claims 1 or 6, N[N- $\gamma$ -L-glutamyl-2-amino-2-(4-(4-S-nitrosomercapto-1-methylpipe-ridin))acetyl]-glycine (5).



- 9.- The compound of any of claims 1 or 6, N[N- $\gamma$ -L-glutamyl-2-amino-3-benzyl-3-(S-nitrosomercapto)-4-phenylbutanoyl]-glycine (6).



10.- The use of the S-nitrosothiols of any of  
the claims above for the manufacture of a medicament for  
5 the treatment of circulatory dysfunctions.

11.- The use of claim 10 for the manufacture of  
a medicament for the treatment of dysfunctions of the  
cardiovascular system.